

DAVIS T.W. NG

The Pennsylvania State University
Department of Biochemistry and Molecular Biology
University Park, PA 16802

Tel: (814) 863-5686
FAX: (814) 863-5876
e-Mail: dtn1@psu.edu

EDUCATION AND TRAINING

University of California, San Francisco, CA 1991 - 1997
Postdoctoral Fellowship (Advisor: Peter Walter)

Northwestern University, Evanston, IL 1986 - 1991
Ph.D. in Molecular and Cell Biology (Advisor: Robert Lamb)

University of California, Berkeley, CA 1980 - 1984
A.B. in Molecular Biology (Research Advisor: Richard Calendar)

PROFESSIONAL EXPERIENCE

Pennsylvania State University, University Park, PA 1998 - 2004
Assistant Professor
Associate Professor 2004 - Present

CURRENT RESEARCH SUPPORT

Title: A cellular tolerance mechanism of aberrant proteins
Sponsor: National Institutes of Health NIGMS; 1 R01 GM59171-01

ACADEMIC HONORS

Boyer Research Fellow (1997)
Senior Postdoctoral Fellow, American Heart Association (1994-1996)
PHS NRSA Postdoctoral Fellowship (1991-1994)
PHS National Research Service Award Recipient (1988-1990)
Northwestern University Graduate Fellowship (1986-88)

PUBLICATIONS

1. Ng, D. T. W., R. E. Randall, and R. A. Lamb. 1989. Intracellular maturation and transport of the SV5 type II glycoprotein hemagglutinin-neuraminidase: Specific and transient association with GRP78-BiP in the endoplasmic reticulum and extensive internalization from the cell surface. *J. Cell Biol.* 109:3273-3289.

EXHIBIT**A**

2. Ng, D. T. W., S. W. Hiebert, and R. A. Lamb. 1990. Different roles of individual N-linked oligosaccharides in the folding, assembly, and transport of the Simian Virus 5 hemagglutinin-neuraminidase. *Mol. Cell. Biol.* 10:1989-2001.
3. Chang, S.-F., D. T. W. Ng, L. Baird, and C. Georgopoulos. 1991. Analysis of an *Escherichia coli dnaB* temperature-sensitive insertion mutation and its cold-sensitive extragenic suppressor. *J. Biol. Chem.* 266:3654-3660.
4. Ng, D. T. W., S. S. Watowich, and R. A. Lamb. 1992. Analysis In Vivo of GRP78-BiP/Substrate interactions and their role in induction of the *GRP78-BiP* gene. *Mol. Biol. Cell.* 3:143-155.
5. Ng, D. T. W. and P. Walter. 1994. Protein translocation across the endoplasmic reticulum. *Curr. Op. Cell Biol.* 6:510-516.
6. Brown, J. D., D. T. W. Ng, S. C. Ogg, and P. Walter. 1995. Targeting pathways to the endoplasmic reticulum membrane. In *Cold Spring Harbor Symposia in Quantitative Biology: Protein Kinases: The Dynamics of Protein Trafficking and Stability*. Cold Spring Harbor Press. Cold Spring Harbor, NY.
7. Ng, D. T. W. and P. Walter. 1996. A membrane protein complex required for nuclear membrane fusion. *J. Cell Biol.* 132:499-509.
8. Ng, D. T. W., J. D. Brown, and P. Walter. 1996. Signal sequences specify the targeting route to the ER membrane. *J. Cell Biol.* 134:269-278.
9. Leser, G.P., K.J. Ector, D.T.W. Ng, M.A. Shaughnessy, and R.A. Lamb. 1999. The signal for clathrin-mediated endocytosis of the paramyxovirus SV5 HN protein resides at the transmembrane domain-ectodomain boundary region. *Virology* 262:79-92.
10. Ng, D. T. W., E. D. Spear, and P. Walter. 2000. The unfolded protein response pathway regulates multiple aspects of secretory and membrane protein biogenesis and endoplasmic reticulum quality control. *J. Cell Biol.* 150:77-88.
11. Spear, E. D. and D. T. W. Ng. 2001. The unfolded protein response: no longer just a special teams player. *Traffic*. 2:515-523.
12. Ng, D. T. W. 2001. Interorganellar signal transduction: The arrest of secretion response. *Dev. Cell.* 1:319-320.
13. Vashist, S., W. Kim, W. Belden, E. D. Spear, C. Barlowe, and D. T. W. Ng. 2001. Distinct retrieval and retention mechanisms are required for the quality control of endoplasmic reticulum protein folding. *J. Cell Biol.* 155:355-367.
14. Helenius, J., D. T.W. Ng, C. L. Marolda, P. Walter, M. A. Valvano and M. Aebi. 2002. The RFT1 protein is required for the translocation of lipid-linked oligosaccharides across the membrane of the endoplasmic reticulum. *Nature*. 415:447-450.

15. Vashist, S., C. G. Frank, C. A. Jakob, and D. T.W. Ng. 2002. Two Distinctly Localized P-Type ATPases Collaborate to Maintain Organelle Homeostasis Required for Glycoprotein Processing and Quality Control. *Mol. Biol. Cell.* **13**:3955-3966.
16. Spear, E. D. and D. T. W. Ng. 2003. Stress tolerance of misfolded carboxypeptidase Y requires maintenance of protein trafficking and degradation pathways. *Mol. Biol. Cell.* **14**:2756-2767.
17. Vashist and D. T. W. Ng. 2003. Misfolded proteins are sorted by a sequential checkpoint mechanism of ER quality control. *J. Cell Biol.* **165**:41-42.